Compatibility between Wireless Communications Devices and Hearing Aids."[328] On April 25, 2005, the Commission's Office of Engineering and Technology (OET) announced that it would also certify handsets as hearing aid-compatible based on the revised draft version of the standard, ANSI C63.19-2005,[329] and on June 6, 2006, OET and the Wireless Telecommunications Bureau permitted certification under version 3.12 of that standard (ANSI C63.19-2006), which reflected further revisions adopted and released in 2006.[330] All of these versions focus on existing services that are in common use. Thus, the 2001 version provides tests for established services in the 800-950 MHz and 1.6-2.0 GHz bands, while the latest version of the ANSI C63.19 standard expands this to include established services in the 1.6-2.5 GHz band.[331] As a result, while applicants for certification may rely on the 2001, 2005, or 2006 version of the ANSI C63.19 standard, none of these versions of the ANSI standard currently provide tests for services in the 700 MHz Band, the AWS-1 band (which lacks established services), the BRS/EBS band, or for newer technologies such as WiMAX.[332]

139. In the *700 MHz Commercial Services Notice*, we tentatively concluded that we should amend our Part 20 rules to specify that Part 27 services, including 700 MHz Commercial Services Band services, that meet the *E911 Scope Order* criteria with appropriate modifications for hearing aid compatibility should be subject to the hearing aid compatibility requirements.[333] We also sought

[328] *Id.* We note that, since its 2005 draft version, the ANSI C63.19 technical standard has used a new nomenclature for hearing aid compatibility compliance in place of the original "U" and "UT" ratings, in order to make the ratings easier for consumers to understand. *See* Letter from Thomas Goode, counsel for The Alliance for Telecommunications Industry Solutions, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 01-309 (filed May 6, 2005) (ATIS Letter); "OET Clarifies Use of Revised Wireless Phone Hearing Aid Compatibility Standard Measurement Procedures and Rating Nomenclature," *Public Notice*, 20 FCC Rcd 8188 (OET 2005). Specifically, the standard now uses an "M" nomenclature for the handset's radio frequency interference rating (rather than "U") and a "T" nomenclature for the handset's inductive coupling rating (rather than "UT"). *See* ATIS Letter. The Commission has approved the use of the "M" and "T" nomenclature and considers the M/T and U/UT nomenclatures as synonymous. *See* Section 68.4(a) of the Commission's Rules Governing Hearing-Aid Compatible Telephones, *Order on Reconsideration and Further Notice of Proposed Rulemaking*, WT Docket No. 01-309, 20 FCC Rcd 11221, 11238 ¶ 33 (*Hearing Aid Compatibility Reconsideration Order*).

[329] *See* "OET Clarifies Use of Revised Wireless Phone Hearing Aid Compatibility Standard Measurement Procedures and Rating Nomenclature," *Public Notice*, 20 FCC Rcd 8188 (OET 2005).

[330] *See* "Wireless Telecommunications Bureau and Office of Engineering and Technology Clarify Use of Revised Wireless Phone Hearing Aid Compatibility Standard," *Public Notice*, 21 FCC Rcd 6384 (WTB/OET 2006).

[331] Section 1.1, "Scope," of the ANSI C63.19-2006 standard provides:

> [The standard] sets forth uniform methods of measurement and parametric requirements for the electromagnetic and operational compatibility and accessibility of hearing aids used with [wireless devices], including cordless, cellular, personal communications service (PCS) phones, and voice over internet protocol (VoIP) devices, operating in the range of 800 MHz to 3 GHz. However, this version is focused on existing services, which are in common use. Accordingly, in this version tests are provided for services in the 800 MHz to 950 MHz and 1.6 GHz to 2.5 GHz frequency bands. Future versions may add tests for other frequency bands, as they come into more common use.

"American National Standard Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids," ANSI C63.19-2006, Accredited Standards Committee on Electromagnetic Compatibility, C63, approved Apr. 6, 2006 (ANSI C63.19-2006 Standard), at 1.

[332] *See* ANSI C63.19-2006 Standard at Table 4.2 (listing target values for validation procedures using dipoles at a limited number of frequencies, and excluding AWS-1 frequencies), Table 7.1 (giving Articulation Weighting Factors for CDMA, TDMA (50 Hz), GSM, UMTS (WCDMA) and TDMA (22 Hz and 11 Hz)). *See also* Comments from American National Standards institute Accredited Standards Committee C63 (EMC) ANSI ASC C63, WT Docket Nos. 01-309, 06-203, filed Jan. 3, 2007, at 3.

[333] *See 700 MHz Commercial Services Notice*, 21 FCC at 9390 ¶¶ 104-05.

comment, without reaching any tentative conclusion, on whether we should amend *§ 20.19(a) to ensure* that all similar wireless services that meet the criteria discussed above would be subject to the hearing aid compatibility requirements.[334] In addition, we noted that the current technical standard for hearing aid compatibility only applies to phones operating on certain frequencies, which do not include operations in the 700 MHz spectrum.[335] We thus sought comment on what changes to the industry standard governing digital wireless handsets' compatibility with hearing aids, ANSI C63.19-2006, would be necessary in order to establish measurement methods and parametric requirements for services provided in the 700 MHz Commercial Services Band.[336] Finally, we sought comment on the time necessary to complete such changes to the standard.[337]

140. Comments on extending hearing aid compatibility requirements express positions similar to those taken on 911/E911. Commenters again widely support the Commission's proposal to require 700 MHz manufacturers and service providers to provide hearing aid-compatible phones.[338] There is again little discussion regarding extending the requirements to other bands.[339] Further, Blooston expresses the same concern as they did in connection with 911/E911 implementation that the development of 700 MHz equipment is not yet as far along as other equipment and that timetables for compliance "should not put licensees into a compliance quandary."[340] RTG considers the imposition of hearing aid compatibility obligations at this time to be "premature."[341]

141. Regarding changes to the hearing aid compatibility standard, the Hearing Aid Industries Association (HIA) argues that the current ANSI C63.19-2006 standard should be "easily adaptable to include the 700 MHz band" and that "[h]andset behavior in the new 700 MHz band is not likely to be significantly different from behavior in the well-established 800 MHz cellular band."[342] It further states that, "[t]o the extent that modification of the ANSI standard becomes necessary during the design and manufacturing processes for 700 MHz handsets, HIA and its members will continue to participate in activities addressing any needed additions or refinements."[343]

142. Discussion. For reasons similar to those discussed in the E911 section above, we determine that all digital CMRS providers, including providers of such services in the 700 MHz Commercial Services Band and the AWS-1 and BRS/EBS bands, should be subject to hearing aid compatibility requirements under § 20.19 to the extent they offer real-time, two-way switched voice or data service that is interconnected with the public switched network and utilizes an in-network switching

[334] *Id.* at 9390 ¶ 106.

[335] *Id.* at 9358 n.82.

[336] *See id.* at 9390 ¶ 21.

[337] *Id.*

[338] *See* AT&T Comments in WT Docket No. 06-150 at 16; Blooston Comments in WT Docket No. 06-150 at 8; Cingular Comments in WT Docket No. 06-150 at 15; CTIA Comments in WT Docket No. 06-150 at 21; Dobson Comments in WT Docket No. 06-150 at 11; HIA Comments in WT Docket No. 06-150 at 2-3; HLAA Comments in WT Docket No. 06-150 at 4; Leap Comments in WT Docket No. 06-150 at 11; Qualcomm Comments in WT Docket No. 06-150 at 24; TIA Comments in WT Docket No. 06-150 at 10; U.S. Cellular Comments in WT Docket No. 06-150 at 18-19; T-Mobile Reply Comments in WT Docket No. 06-150 at 6.

[339] *See* Leap Comments in WT Docket No. 06-150 at 11 (advocating that "all CMRS services – whether operating in spectrum allocated for PCS, AWS, 700 MHz or some other service – be made subject to the same emergency access and compatibility requirements.").

[340] *See* Blooston Comments in WT Docket No. 06-150 at 8-9.

[341] *See* RTG Comments in WT Docket No. 06-150 at 9.

[342] HIA Comments in WT Docket No. 06-150 at 4 & n.7.

[343] *Id.* at 4.

facility that enables the provider to reuse frequencies and accomplish seamless hand-offs of subscriber calls. In addition, manufacturers of wireless handsets that are capable of providing such service also should be made subject to the applicable requirements of § 20.19. As discussed below, however, the existence of an established, applicable technical standard is a statutory requirement for imposing hearing aid compatibility requirements. Because no such standard currently exists for any services beyond the broadband PCS, Cellular, and certain SMR bands, we cannot presently impose hearing aid compatibility requirements on additional services. We do commit to bringing all digital CMRS within the scope of the § 20.19 requirements as appropriate technical standards are developed, and we take steps to promote the development of these technical standards, as discussed below. In particular, we establish a specific timetable for the development of the necessary technical standards for those new services that have governing service rules in place. We amend the rule to reflect these determinations, including our decision that hearing aid compatibility requirements will apply to any CMRS to the extent that it meets the criteria discussed above and there is an established technical standard for hearing aid compatibility applicable to the relevant handsets.

143. Extending hearing aid compatibility requirements to services beyond those currently covered will ensure that comparable service providers and manufacturers will be required to comply with similar hearing aid-compatible handset requirements regardless of the frequency bands on which they operate.[344] Further, end users will be able to expect the full range of functionality found today in mobile phones without having to know the technical details, such as the frequencies on which their phones operate.[345] Moreover, by clarifying the applicability of the hearing aid compatibility rules to these manufacturers and service providers now, we enable them to begin planning to incorporate hearing aid compatibility compliance into their operations at the earliest possible stage, which should also promote a more efficient implementation.[346] We also ensure that the necessary parties become involved in ongoing discussions among the Commission, service providers, standards bodies, and industry representatives to develop additional standards for hearing aid compatibility measurement methods and parametric requirements.[347]

144. This extension is consistent with the views of most commenters, which are generally supportive of the idea of extending the hearing aid compatibility requirements to services in new spectrum, and particularly the 700 MHz Commercial Services Band, to the extent that those services are similar to the services already subject to hearing aid compatibility requirements. As with the supporters of E911 extension, commenters supporting application of the hearing aid compatibility requirements to 700 MHz service providers include a broad range of interests, including large and mid-sized wireless carriers,[348] manufacturing interests,[349] and groups representing hearing aid users and manufacturers.[350]

---

[344] *See* Aloha Partners Comments in WT Docket No. 06-150 at 12; CTIA Comments in WT Docket No. 06-150 at 22; USCC Comments in WT Docket No. 06-150 at 18-19. *See also* Implementation of Sections 3(n) and 332 of the Communications Act, *Third Report and Order*, GN Docket No. 93-252, 9 FCC Rcd 7988 at ¶ 23 (1994) (noting that a "symmetrical regulatory framework for commercial mobile radio services" will "foster economic growth and expanded service to consumers through competition").

[345] *See* Cingular Comments in WT Docket No. 06-150 at 16 (stating that "[c]onsumers' expectations" will be served by extension of hearing aid compatibility requirements to the 700 MHz band).

[346] *See* HIA Comments in WT Docket No. 06-150 at 3; HIA Reply Comments in WT Docket No. 06-150 at 2

[347] For the reasons discussed above, we decline to incorporate the criteria enumerated in the *E911 Scope Order* into § 20.19(a). *See supra* Section III.A.2.c(vi).

[348] *See* Cingular Comments in WT Docket No. 06-150 at 15-16; Dobson Communications Comments in WT Docket No. 06-150 at 11; U.S. Cellular Comments in WT Docket No. 06-150 at 18-19.

[349] Qualcomm Comments in WT Docket No. 06-150 at 24; TIA Comments in WT Docket No. 06-150 at 9-10.

[350] *See* HIA Comments in WT Docket No. 06-150 at 2-3; HLAA Comments in WT Docket No. 06-150 at 2.

Accordingly, we conclude that any CMRS digital service that meets the § 20.19(a) criteria for inclusion should be subject to hearing aid compatibility requirements.

145. We decline, however, to impose hearing aid compatibility obligations on other services and bands at this time. When the Commission imposed the existing hearing aid compatibility obligations on handset manufacturers and service providers in 2003, it simultaneously approved ANSI C63.19 as an established technical standard applicable to the services covered by the rule.[351] Indeed, the Commission noted that the existence of an established technical standard was a statutory requirement for imposing hearing aid compatibility, and further found that this statutory requirement was "[f]undamental" to the determination of whether to impose hearing aid compatibility on wireless devices.[352] We therefore find that an applicable technical standard should be in place when hearing aid compatibility obligations are imposed in the 700 MHz Commercial Services Band and other bands.

146. As noted above, none of the available versions of the current hearing aid compatibility standard cover services in the 700 MHz Commercial Services Band or the AWS-1 or BRS/EBS bands. Nor do they provide tests for some of the technologies anticipated in these bands, such as WiMAX. HIA argues that the ANSI C63.19-2006 standard for the 800 MHz band provides an appropriate framework to measure performance in the 700 MHz Band for purposes of determining hearing aid compatibility, but the record does not establish that the existing standard can be extended to that band without modifications or amendments. Indeed, HIA concedes that modifications to the standard may be necessary,[353] and the Hearing Loss Association of America (HLAA) also supports this conclusion, noting that changes to the standard will be necessary to accommodate emerging technologies.[354] Accordingly, we conclude that we cannot extend specific hearing aid compatibility obligations to emerging bands and services until specific standards that establish the hearing aid compatibility measurement methods and parametric requirements for these additional services' and bands' devices are developed.

147. We note that ANSI has stated that it has authorized a "study project" to examine, among other topics related to the C63.19 standard, the possibility of extending the relevant frequency band for wireless devices' compatibility with hearing aids to the range from 700 MHz to 8 GHz.[355] The same study project will consider the addition of tests and parametric requirements for other frequency bands including AWS-1 at 1710/2110 MHz and the BRS/EBS at 2.5 GHz, as well as new broadband technologies.[356] Because we find that a standard for compliance should be established before hearing aid compatibility is imposed on a service, and because such standards are currently in development for the new bands and technologies, we decline to extend hearing aid compatibility requirements at this time.

148. Establishment of hearing aid compatibility requirements for comparable services must not be delayed – particularly for the 700 MHz Commercial Services Band and the other bands currently

---

[351] *See Hearing Aid Compatibility Order*, 18 FCC Rcd at 16771 ¶ 43.

[352] *See id.*, 18 FCC Rcd at 16769 ¶¶ 39 (citing 47 U.S.C. § 610(b)(1)(B) (requiring that the specified telephones "provide internal means for effective use with hearing aids that are designed to be compatible with telephones *which meet established technical standards for hearing aid compatibility*." (emphasis added))), 44, 49. *See also* Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible Telephones, WT Docket No. 01-309, *Notice of Proposed Rulemaking*, 16 FCC Rcd 20558, 20564 ¶ 16 (2001) (finding that the statute "requires the establishment of *technical standards* governing wireless-hearing aid compatibility" (emphasis in original)).

[353] *See* HIA Comments in WT Docket No. 06-150 at 4.

[354] *See* HLAA Comments in WT Docket No. 06-150 at 4.

[355] Comments from American National Standards Institute Accredited Standards Committee C63 (EMC) ANSI ASC C63, WT Docket Nos. 01-309 and 06-203, filed Jan. 3, 2007, at 2-3.

[356] *Id.* at 3.

listed in § 27.1(b), which include the AWS-1, BRS/EBS, 1.4 GHz, 1.6 GHz, and 2.3 GHz bands,[357] all of which now have or soon will have service rules established, and which either have been or will soon be licensed.[358] Because we seek to promote the development of additional standards, we establish a schedule for future Commission actions. Accordingly, if the appropriate technical standards for the bands listed in § 27.1(b) are established within 24 months of the Federal Register publication of this Order, we will proceed based on the adopted standards and we commit to initiating a further proceeding at that time to establish a specific timetable for deployment of hearing aid-compatible handsets for services in the relevant bands that meet the criteria discussed above. Given that ANSI is already considering extensions of the C63.19 standard to the 700 MHz Commercial Services Band and the AWS-1 and BRS/EBS bands, we find that a 24 month period to complete standards for these services is reasonable.[359] We strongly encourage ANSI and the various stakeholders in this process to work together towards adoption of technical standards in a timely manner so that hearing aid users will have the same accessibility to interconnected services in the new bands as they do in the bands already addressed in section 20.19(a) of the Commission's rules.[360]

149. We will continue to monitor progress to make sure that the adoption of such standards proceeds in a timely manner. If no standards have been adopted within 24 months, we will consider alternative means to implement compatibility requirements, including whether to develop new metrics for compliance entirely and/or whether to extend the C63.19-2006 standard for the 800 MHz Band into the 700 MHz Commercial Services Band, as HIA suggests.[361] We will not at this time establish a schedule for future action regarding bands other than the current 27.1(b) bands because it does not appear to be possible to develop compatibility standards in the absence of service rules. We also note that there is little or no discussion in the record of extending hearing aid compatibility beyond the 700 MHz Commercial Services Band. We will, however, pursue appropriate action as the nature of services in new bands becomes more defined or we find that an applicable standard has been or can be developed.

150. Although we do not impose specific hearing aid compatibility obligations on these services at this time, we again reject RTG's assertion that a timetable for such obligations must

---

[357] The 1.4 GHz Band, as licensed under Part 27, includes an unpaired block of spectrum at 1390-1392 MHz and a paired block at 1392-1395 MHz and 1432-1435 MHz. The 1.6 GHz Band consists of 1670-1675 MHz. The 2.3 GHz Band includes 2305-2320 MHz and 2345-2360 MHz. *See* 47 C.F.R. § 27.1(b)(4)-(6).

[358] *See* 47 C.F.R. § 27.1(b) (listing bands licensed under Part 27 rules, including 2.3 GHz, 700 MHz, AWS-1, 1.4 GHz, 1.6 GHz, and BRS/EBS bands); *see also, e.g.*, Amendments to Parts 1, 2, 27 and 90 of the Commission's Rules to License Services in the 216-220 MHz, 1390-1395 MHz, 1427-1429 MHz, 1429-1432 MHz, 1432-1435 MHz, 1670-1675 MHz, and 2385-2390 MHz Government Transfer Bands, WT Docket No. 02-8, *Report and Order*, 17 FCC Rcd 9980 (2002) (establishing service rules for certain frequencies in the 1.4 and 1.6 GHz bands); Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands, WT Docket No. 02-353, *Report and Order*, 18 FCC Rcd 25162 (2003), *Order on Reconsideration*, FCC 05-149 (rel. Aug. 15, 2005) (establishing AWS-1 service rules); Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands, *Report and Order and Further Notice of Proposed Rulemaking*, WT Docket No. 03-66, 19 FCC Rcd 14165 (2004) (BRS/EBS R&O and FNPRM), *Order on Reconsideration and Fifth Memorandum Opinion and Order and Third Memorandum Opinion and Order and Second Report and Order*, 21 FCC Rcd 5606 (2006) (establishing BRS/EBS service rules).

[359] *See supra* ¶ 171. We also note that ANSI has extended the C63.19 standard to the 1.6-2.5 GHz band for established services in those bands. We therefore believe that much of the work necessary to develop technical standards for the 1.4 GHz, 1.6 GHz, and 2.3 GHz Bands has already been done.

[360] In particular, we would encourage the appropriate standards-setting body to consider HIA's proposal to make use of the existing C63.19-2006 standard in the 700 MHz Band.

[361] The Commission has authority to establish the technical standards required for hearing aid compatibility. *See* 47 U.S.C. 610(c).

necessarily wait until the nature of the services to be offered, the technologies to be used in the band, and the impact on rural carriers are clearer. We emphasize that the services subject to hearing aid compatibility obligations in the *700 MHz Commercial Services Band and elsewhere will be the same* types of services that are subject to such obligations in other bands under the existing § 20.19(a) of the Commission's rules.[362] Therefore, once an appropriate technical standard is available, we do not find it necessary to delay implementation any further in order to see how the services in the band develop or through what technologies they are provided. Rather, we will expect similar services to be subject to similar hearing aid compatibility obligations, regardless of the technologies over which they are provided. Although the development of an appropriate standard will be technology-specific, the technologies that need to be addressed are few in number, and, as noted above, a study project has already been authorized by the ANSI ASC C63 Committee to develop the appropriate hearing aid compatibility measurement methods and parametric requirements for these technologies. Finally, because we are imposing no new rules at this time, any analysis of the impact of these obligations on small rural carriers in particular can be deferred until the standards are in place to allow the further rulemaking activity.

B. 700 MHz Guard Bands

151. As we indicated in the *700 MHz Guard Bands Notice,* we seek to establish rules and policies that provide Guard Band licensees greater flexibility while continuing to ensure non-interference with the adjacent 700 MHz Public Safety spectrum. As part of this endeavor we sought comment on a number of band restructuring proposals. As discussed below in the Further Notice, we tentatively conclude that we do not have the legal authority, and it is not in the public interest, to adopt at this time certain of the band restructuring proposals raised in this docket.[363] We do, however, take several measures in this Report and Order, as broadly endorsed by commenters, to promote more efficient and effective use of the 700 MHz Guard Bands spectrum. Specifically, we replace the current band manager leasing regime with the spectrum leasing policies and rules adopted in the Secondary Markets proceeding. In applying the Secondary Markets leasing rules to the 700 MHz Guard Bands, we are eliminating the special restrictions imposed under the Guard Bands licensing regime that prevented licensees from using their spectrum as a wireless service provider and restricted their ability to lease to affiliates, and permitting more operational flexibility for 700 MHz Guard Bands licensees.

1. Background

152. As discussed in the *700 MHz Guard Bands Notice,* in adopting the licensing, technical and operational rules for the 700 MHz Guard Bands, the Commission created a new class of commercial licensee that makes spectrum available to system operators or directly to end users through private, written contracts known as "spectrum user agreements."[364] The Commission afforded these Guard Band Manager licensees flexibility to tailor their spectrum to the unique requirements of potential system

---

[362] *See* HIA Reply Comments in WT Docket No. 06-150 at 2 ("[Hearing aid compatibility] relates to voice communication, so there is no need to wait and see what other services may develop before imposing the requirements on voice handsets."). Although the text of the scope provision does encompass data services as well, *see* 47 C.F.R. § 20.19(a), we note that such services must still satisfy the other requirements of § 20.19(a). Thus, they must be real-time, two-way, and interconnected with the public switched network, such that they directly give subscribers "the capability to communicate to or receive communications from all other users" on networks that use the North American Numbering Plan in connection with the provision of their service. *See* 47 C.F.R. § 20.3 (definition of "Interconnected Service," "Public Switched Network"). Further, as an implicit matter, services must at least potentially involve auditory output. In light of these restrictions, voice communications will remain the primary, if not exclusive, subject of hearing aid compatibility.

[363] *See infra* Section IV.B.2.a.

[364] *700 MHz Guard Bands Notice*, 21 FCC Rcd at 10417 ¶ 9, *citing Upper 700 MHz Second Report and Order,* 15 FCC Rcd at 5312 ¶ 27. *See generally* 47 C.F.R. Part 27, Subpart G ("Guard Band Managers").

operators or end users.[365] The Commission stated that the primary responsibility of the Guard Band Manager is to ensure non-interference with the adjacent 700 MHz Public Safety Band,[366] and that the Guard Band Manager retains ultimate control of spectrum use within the scope of its license, including subdivision of spectrum blocks and geographic areas, frequency coordination, channel selection, resolution of interference conflicts, and compliance with the Commission's rules.[367] Guard Band Managers also are subject to stringent coordination requirements,[368] cannot use their spectrum as a wireless service provider, and cannot lease more than 49.9 percent of their spectrum in a geographic area to affiliates.[369]

153. The *700 MHz Guard Bands Notice* also noted that, subsequent to the adoption of the Guard Band Manager licensing regime, the Commission in 2003 established a broad set of new spectrum leasing policies and rules in its Secondary Markets proceeding and applied these spectrum leasing policies and rules to most Wireless Radio Service licensees holding "exclusive use" licenses.[370] These spectrum leasing policies and rules, adopted in the *Secondary Markets First Report and Order* and extended to additional Wireless Radio Services in the 2004 *Secondary Markets Second Report and Order*,[371] generally permit two types of leasing options: *de facto* transfer leasing, and spectrum manager leasing. A *de facto* transfer lease arrangement places primary responsibility upon the spectrum lessee to interact with the Commission and ensure compliance with the Commission's rules; however the licensee retains ultimate responsibility for its lessees' ongoing violations or other egregious behavior about which the licensee has knowledge or should have knowledge.[372] Under this option, subject to Commission approval, "licensees and spectrum lessees may enter into spectrum leasing arrangements – for any amount of spectrum, in any geographic area, and for any period of time within the scope and term of the license – in which *de facto* control of the leased spectrum is transferred to the spectrum lessee(s) for the duration of the lease."[373] Under the second option, spectrum manager leasing, "licensees and spectrum lessees may enter into spectrum leasing arrangements – for any amount of spectrum, in any geographic area, and for any period

---

[365] *700 MHz Guard Bands Notice*, 21 FCC Rcd at10417 ¶ 9, citing *Upper 700 MHz Second Report and Order*, 15 FCC Rcd at 5313 ¶ 29. For example, we noted, entities could secure spectrum from a Guard Band Manager in varying degrees of quantity, duration and geographic area to best suit their needs. *700 MHz Guard Bands Notice*, 21 FCC Rcd at 10417 ¶ 9, citing *Second Report and Order*, 15 FCC Rcd at 5313-14 ¶ 31.

[366] *700 MHz Guard Bands Notice*, 21 FCC Rcd at 10418 ¶ 10, citing *Upper 700 MHz Second Report and Order*, 15 FCC Rcd at 5314-15 ¶ 33.

[367] *700 MHz Guard Bands Notice*, 21 FCC Rcd at 10417 ¶ 9, citing *Upper 700 MHz Second Report and Order*, 15 FCC Rcd at 5314 ¶ 32.

[368] *700 MHz Guard Bands Notice*, 21 FCC Rcd at 10418 ¶ 10, citing *Upper 700 MHz Second Report and Order*, 15 FCC Rcd at 5315 ¶ 34. Guard Band Managers must notify Commission-recognized public safety frequency coordinators in the 700 MHz Public Safety Band, as well as adjacent-area Guard Band Managers, of the technical parameters of any new station or station modification. The Commission requires each notification to specify, within a limited timeframe, the frequency, antenna height, antenna location, emission type, effective radiated power, service area description, date of coordination, and user name or description of operation. *Id.*

[369] *Upper 700 MHz Second Report and Order*, 15 FCC Rcd at 5325 ¶ 59. The Commission created these restrictions to promote the core band manager feature of leasing spectrum to third parties, theoretically ensuring a "useful test of the Band Manager concept." *Id.*

[370] *See* Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, *Report and Order and Further Notice of Proposed Rulemaking*, 18 FCC Rcd 20604, 20644-45 ¶ 85 n.189 (2003) ("*Secondary Markets First Report and Order*"). *See generally* 47 C.F.R. Part 1, Subpart X ("Spectrum Leasing").

[371] *Secondary Markets Second Report and Order*, 19 FCC Rcd at 17534-35 ¶ 64.

[372] *Secondary Markets First Report and Order*, 18 FCC Rcd at 20612-13 ¶ 13.

[373] *Id.* In this type of spectrum leasing arrangement, the licensee retains *de jure* control. *Id.*

of time within the scope and term of the license – without the need for prior Commission approval, provided the licensees retain *de facto* control...over the leased spectrum."[374] Application filings through the Universal Licensing System (ULS) are required for both types of spectrum leasing arrangements, and spectrum leasing parties must submit detailed information on the amount, frequency and geographic location of the leased spectrum, as well as the length of the spectrum leasing arrangement.[375]

154. At the time, the Commission did not apply spectrum leasing policies adopted in the Secondary Markets proceeding to the 700 MHz Guard Bands.[376] The Commission also did not extend the Secondary Markets spectrum leasing policies to the 700 MHz Guard Bands in the 2004 *Secondary Markets Second Report and Order*, noting that the 700 MHz Guard Bands service "already has its own distinct set of policies and rules regarding leasing arrangements, and no commenters proposed replacing those policies" with the model adopted in the Secondary Markets proceeding.[377]

155. In the *700 MHz Guard Bands Notice*, we sought comment on whether we should retain our existing Guard Band Manager rules or whether we should apply a different set of policies and rules for enabling third parties to gain access to spectrum usage rights, such as those adopted in the Secondary Markets proceeding.[378] We also asked whether we should apply the existing Guard Band Manager rules to the returned Nextel spectrum or whether another regulatory structure is appropriate, even if existing rules are retained for incumbent licensees.[379] We also asked whether we should permit existing or new licensees to choose among several regulatory options for managing the 700 MHz Guard Bands, and if so, how we may best implement such an approach, including how to accommodate different regulatory schemes within the same band.[380] We also sought comment on any alternative approach involving relaxation of certain band manager restrictions, while retaining the overall band manager concept.[381] Finally, we asked any proponent of a revised Guard Band Manager regime to comment on how its proposal will fulfill the primary responsibility of any Guard Band licensee to ensure non-interference with the adjacent 700 MHz Public Safety Band.[382]

2. Discussion

156. For the reasons described below, we replace the Guard Band Manager regime in favor of the spectrum leasing policies and rules adopted in the Secondary Markets proceeding, and remove certain use and eligibility restrictions regarding licensee operations and leasing to affiliates to encourage the most effective and efficient use of the Guard Bands spectrum. While we seek to provide licensees and spectrum lessees with greater latitude and remove regulatory barriers where possible, we retain the existing Guard Band Manager coordination requirements.

---

[374] *Id.* at 20610-12 ¶ 12. In this type of lease arrangement, the licensee retains both *de jure* and *de facto* control. *Id.*

[375] *See* 47 C.F.R. ¶¶ 1.9010, 1.9020, 1.9030, 1.9035.

[376] *Secondary Markets First Report and Order*, 18 FCC Rcd at 20644-45 ¶ 85.

[377] *See* Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, *Second Report and Order, Order on Reconsideration and Second Further Notice of Proposed Rulemaking*, 19 FCC Rcd 17503, 17534-35 ¶ 64 (2004) ("*Secondary Markets Second Report and Order*").

[378] *700 MHz Guard Bands Notice*, 21 FCC Rcd at 10421-24 ¶¶ 18-24.

[379] *Id.* at 10423 ¶ 22.

[380] *Id.*

[381] *Id.*

[382] *Id.* at 10424 ¶ 24.

a. Adoption of Secondary Markets Spectrum Leasing Rules

157. Among our key public interest objectives is to ensure that spectrum is put to its most efficient and effective use, and the Commission has increasingly granted technical and operational flexibility to its licensees to enable them to achieve that goal when it is consistent with preventing unacceptable interference. In adopting the Secondary Markets spectrum leasing policies and rules, the Commission accommodated the demand for significantly broader access to licensed spectrum by enabling a wide array of facilities-based providers to enter into spectrum leasing arrangements with spectrum users. These rules provided licensees with greater ability and incentive to make unused spectrum available to third parties, and thus promoted the provision of new and diverse services and applications. Third parties that could benefit from such spectrum leasing arrangements may include current spectrum operators requiring additional spectrum to meet customer needs over either the short- or long-term, new entrants seeking to provide a niche service and serve a limited area or narrowly targeted end-user market, small businesses trying to deliver services in rural communities, or entities unable or unwilling to participate in spectrum auctions or that otherwise do not have a license through which they can access spectrum to meet consumer or internal operational needs. By adopting the Secondary Markets spectrum leasing model, the Commission sought to establish spectrum leasing policies that allow licensees and spectrum lessees significant flexibility to enter into leasing arrangements that best meet their respective business needs and enable more efficient use of spectrum.

158. Commenters in this proceeding advocate replacing the existing Guard Band Manager rules with the Secondary Markets spectrum leasing policies and rules.[383] Commenters argue that the spectrum leasing options under the Secondary Markets rules offer a more flexible approach to the leasing of spectrum, and will aid 700 MHz Guard Bands licensees in maximizing the use of their spectrum, enabling more parties to gain access to spectrum through leasing agreements.[384] We agree with commenters that the Secondary Markets spectrum leasing model may be more effective than the existing band manager rules in accomplishing the Commission's goals of permitting the efficient and intensive use of spectrum while protecting public safety operations from harmful interference. Although the Commission sought to provide appropriate incentives to encourage greater participation in band manager leasing arrangements, the Guard Band Managers appear to have had limited success in negotiating spectrum user agreements with third parties.[385] In contrast, the steadily increasing number of spectrum leasing arrangements in the other Wireless Radio Services reflects the growing use and acceptance of Secondary Markets spectrum leasing policies by wireless providers and spectrum lessees as an effective method to make spectrum more readily available to additional spectrum users. Since the Secondary Markets spectrum leasing procedures went into effect in February 2004, licensees and spectrum lessees have entered into approximately 1,200 spectrum leasing arrangements.

159. Accordingly, we determine that providing Guard Bands licensees the additional flexibility offered by the Secondary Markets spectrum leasing regime would enhance spectrum usage in the 700 MHz Guard Bands. Specifically, in order to provide maximum flexibility, Guard Band licensees now will have the option of entering into both spectrum manager leasing and *de facto* transfer leasing arrangements. By permitting Guard Band licensees and spectrum lessees to choose between the two different options, we will afford licensees and spectrum lessees significant flexibility to craft the type of leasing arrangement that best matches their particular needs and the demands of the marketplace. This

---

[383] Access Spectrum/Pegasus Comments in WT Docket No. 06-169, App. at 2; Ericsson Comments in WT Docket No. 06-169 at 18; Radiofone Comments in WT Docket Nos. 06-169 at 8; Arcadian Reply Comments in WT Docket No. 06-169 at 4. NPSTC does not object to the application of Secondary Markets leasing rules, provided that whatever mechanism is established fully protects public safety operations from interference. NPSTC Comments in WT Docket No. 06-169 at 10.

[384] *See id.*

[385] *See supra* Section III.B.1.

flexibility could, in turn, help achieve fuller utilization of the spectrum. For example, adopting rules that permit Guard Band licensees to participate in *de facto* transfer leasing – in which primary responsibility for compliance with statutory and regulatory policies and rules is transferred from licensees to spectrum lessees – could encourage a licensee to enter into a leasing agreement that might otherwise be unattractive due to the level of operational oversight necessary to ensure compliance with the Commission's rules in a specific case.

160. We emphasize, however, that by affording 700 MHz Guard Band licensees greater flexibility, particularly in the *de facto* transfer leasing context, we are not minimizing in any way the requirement that these licensees must ensure that adjacent public safety operations are protected from harmful interference. Protection of 700 MHz public safety operations from interference remains the primary goal of the Commission's policies relating to the 700 MHz Guard Bands. We agree with comments that the Secondary Markets spectrum leasing rules provide sufficient mechanisms to ensure non-interference with spectrum users in the adjacent 700 MHz Public Safety Band. As noted by the BOP proponents, the Secondary Markets spectrum leasing rules provide protection equivalent to the band manager rules.

161. Although we recognize that the additional flexibility afforded by the *de facto* transfer spectrum leasing option transfers the primary responsibility for ensuring interference protection to the spectrum lessee, we conclude that public safety users will still be protected from interference under the Secondary Markets spectrum leasing rules. Under this option, 700 MHz Guard Band licensees continue to retain some responsibility for operations encompassed under their license authorizations,[386] and may be held responsible in cases of ongoing violation or other egregious lessee behavior for which licensees have, or should have, knowledge.[387] More importantly, although we expect Guard Band licensees to continue to exercise some oversight of its lessees, the Commission retains direct authority to pursue remedies against lessees under Section 503(b) of the Act.[388] Spectrum lessees, whether under a spectrum manager leasing arrangement or a *de facto* transfer leasing arrangement, must strictly comply with the technical restrictions of the band, and must expressly agree to comply with all applicable Commission rules as a condition of the spectrum leasing arrangement.[389] Regardless of whether the licensee or spectrum lessee holds primary responsibility for compliance with Commission rules, the Commission maintains the ability to take direct and swift action to enforce compliance with its rules.

162. We conclude that we should apply our Secondary Markets spectrum leasing rules to the 700 MHz Guard Bands service. By doing so, we will facilitate more efficient use of the spectrum by licensees and spectrum lessees, and will produce a more market-driven system that should better meet the needs of the public without compromising the Commission's other core public interest goals – specifically, ensuring that public safety operations are protected from harmful interference.[390] Although we sought comment on whether we should permit licensees to choose between the existing Guard Band

[386] *See Secondary Markets First Report and Order*, 18 FCC Rcd at 20664 ¶ 136.

[387] *Id.*

[388] *Id.* at 20664 ¶¶ 137-138.

[389] *See* 47 C.F.R. §§ 1.9020(d)(1), 1.9030(d)(1), 1.9035 and 1.9040(a).

[390] We note that because we will now apply secondary markets leasing rules to the 700 MHz Guard Bands, our designated entity rules – specifically the rules regarding material relationships – will apply to these Guard Bands as well. *See* Implementation of the Commercial Spectrum Enhancement Act and Modernization of the Commission's Competitive Bidding Rules and Procedures, WT Docket No. 05-211, *Second Report and Order and Second Further Notice of Proposed Rulemaking*, 21 FCC Rcd 4753 (2006) (revising the Commission's Part 1 rules to include certain "material relationships" as factors in determining designated entity eligibility); Implementation of the Commercial Spectrum Enhancement Act and Modernization of the Commission's Competitive Bidding Rules and Procedures, WT Docket No. 05-211, *Order on Reconsideration of the Second Report*, 21 FCC Rcd 6703, 6716 ¶ 30 (2006) (exempting services not subject to secondary markets leasing from the revised "material relationships" rules).

Managers regime or the Secondary Markets spectrum leasing rules,[391] we conclude that it is unnecessary to also allow licensees the ability to choose between the two leasing models, and thus replace the Guard Band Manager leasing regime with the Secondary Markets spectrum leasing policies and rules. Application of the Secondary Markets rules to all 700 MHz Guard Bands licensees will provide significant additional flexibility and ensure that these licensees are treated similarly to other Wireless Radio Services holding exclusive use licenses and leasing spectrum usage rights.

b. Use and Operational Flexibility

163. In addition to providing licensees and other spectrum users additional flexibility provided under our general Secondary Markets spectrum leasing rules, we conclude that other changes to the 700 MHz Guard Bands rules should be made to promote more efficient and effective use of this spectrum. Commenters argue that certain 700 MHz Guard Bands rules deter licensees and potential spectrum users from entering into spectrum user agreements. The BOP proponents argue that the band manager model imposes a number of requirements—the specification that a Guard Band licensee acts only as a spectrum broker and not a service provider, the requirement that the predominant amount of a licensee's spectrum must be leased to non-affiliates, and restrictions on the conditions that a licensee may impose on lessees and end users—that significantly restrict the use of Guard Bands spectrum.[392] Similarly, Arcadian Networks (Arcadian) – an existing Guard Band lessee – argues that the restrictions against Guard Band Managers using their spectrum as system operators, and leasing their spectrum to affiliates, should be eliminated because the restrictions have stifled the market for 700 MHz Guard Bands spectrum.[393] According to Arcadian, the Secondary Markets spectrum leasing rules have proven more successful without such restrictions.[394]

164. *Band Manager Status*. In creating the 700 MHz Guard Bands service, the Commission designated Guard Band Managers as a new class of commercial licensee engaged solely in leasing spectrum to third parties.[395] We agree with commenters that we should re-evaluate our decision to limit the ability of licensees to act as service providers. The band manager rules and policies that specify that a Guard Band licensee may only act as a spectrum manager unduly restrict the ability of parties to use the spectrum, and may preclude the deployment of services that might otherwise be offered. Depending upon the circumstances, it may be that the Guard Band licensee itself is best positioned to make maximum use of the Guard Bands spectrum. Precluding a licensee from operating as a service provider may prevent access by parties that could make actual use of the band, and hinders, rather than facilitates, the efficient use of the spectrum. We believe that, as long as a 700 MHz Guard Band licensee can fulfill its primary function of effectively managing its licensed spectrum and ensuring that 700 MHz public safety operations are protected from interference, there is little reason to preclude that licensee from also providing service. Accordingly, we will revise our rules to permit licensees to operate as wireless service providers. To the extent that a licensee chooses to provide service, we require that the licensee update their license information if they plan to switch their regulatory status,[396] and we note that licensees will be responsible for meeting all other obligations relating to their change in status.[397]

---

[391] NPSTC opposes the ability for the Guard Band licensee to choose between regulatory models, stating that this can dilute responsibility. NPSTC Comments in WT Docket No. 06-169 at 11.

[392] Access Spectrum/Pegasus Comments in WT Docket No. 06-169, App. at 2.

[393] Arcadian Networks Reply Comments in WT Docket No. 06-169 at 4.

[394] *Id.*

[395] *Upper 700 MHz Second Report and Order*, 15 FCC Rcd at 5312-5313 ¶¶ 26-27.

[396] Licensees will be required to update their status pursuant to Section 27.10(d) of the Commission's rules.

[397] For example, such obligations could include interconnection, numbering and universal service.

165. *Restrictions on Leasing to Affiliates.* Similarly, we conclude that it is in the public interest to remove the current restriction precluding any licensee from leasing more than 49.9 percent of its licensed spectrum to affiliates. As in the case of the policy precluding licensees from providing service, we believe that our rule requiring that licensees lease the predominant amount of their spectrum to non-affiliates prevents entities from maximizing use of the spectrum, and hinders the provision of service to end users. This restriction also may prevent licensees and lessees from taking advantage of new technologies. The BOP proponents argue that since a band manager must lease the majority of its spectrum to unaffiliated parties, any band manager affiliate would not be able to deploy even a single broadband channel because it would require the majority of the spectrum.[398] To the extent that we determine that broadband deployment is permissible in one or both of the 700 MHz Guard Bands, the Commission's restrictions that prevent Guard Band Managers from providing service or from leasing any more than 49.9 percent of its license to affiliates would hinder the ability of Guard Band licensees or their affiliates to deploy such service. Restrictions regarding use by the licensee or its affiliates may prevent entities from optimizing the use of the spectrum or entering into Secondary Markets spectrum leasing agreements with adjacent licensees that are not similarly restricted. Accordingly, we eliminate this restriction.

166. *Other Lease Restrictions.* Under existing policies, 700 MHz Guard Band licensees are prohibited from imposing unduly restrictive requirements in the spectrum user agreements regarding access to, and use of, spectrum.[399] In adopting these band manager rules, the Commission noted that Guard Band Managers would be afforded a considerable amount of latitude in determining the most efficient way to manage their spectrum.[400] The Commission concluded, however, that it was necessary to ensure that band managers did not impose unreasonable terms and conditions on lessees or end users.[401] Although these restrictions were aimed at ensuring that band managers do not engage in unreasonable practices, as the BOP proponents point out, the existing rules may adversely affect the ability of Guard Band licensees to negotiate with spectrum users regarding otherwise standard lease provisions, such as mandating the use of a particular technology, that other wireless licensees are permitted to negotiate.[402] We note that our Secondary Markets spectrum leasing rules do not have similar restrictions and our rules generally permit parties to determine the precise terms and provisions of their spectrum lease agreements.[403] As noted above, we are adopting for the Guard Bands the same spectrum leasing policies set forth in the Secondary Markets proceeding. We believe that these policies provide sufficient incentives for licensees to lease spectrum usage rights, while also providing licensees with the ability to establish appropriate operational guidelines with spectrum lessees that protect public safety licensees from interference.[404] As such, we eliminate this requirement.

167. *Coordination Requirement.* The Commission requires Guard Band Managers to notify public safety frequency coordinators in the 700 MHz Public Safety Band, as well as adjacent-area Guard Band Managers, of the technical parameters of any site constructed in the Guard Band Manager's license area. Guard Band Managers must provide such identifying information as the frequencies coordinated, antenna height and location, and effective radiated power.[405] The BOP proponents argue that the current

[398] Access Spectrum/Pegasus Comments in WT Docket No. 06-169, App. at 2.

[399] 47 C.F.R.§§ 27.602(g), 27.603(b).

[400] *Upper 700 MHz Second Report and Order*, 15 FCC Rcd at 5327-5328 ¶¶ 64-65.

[401] *Id.* at 5328 ¶¶ 64-65.

[402] Access Spectrum/Pegasus Comments in WT Docket No. 06-169, App. at 2.

[403] *Secondary Markets First Report and Order*, 18 FCC Rcd at 20637 ¶ 70.

[404] We note that we may still consider complaints filed against a Guard Band Manager for unreasonably denying access to its spectrum pursuant to our authority under Sections 308(b) and 309(d) of the Communications Act.

[405] 47 C.F.R. § 27.601(d)(1).

rules that apply to the existing Guard Bands A and B Blocks should be replaced with the less burdensome coordination requirements that exist for the C and D Blocks.[406] They argue that under the BOP, there will be no commercial operations directly adjacent to public safety narrowband channels, and thus heightened coordination requirements are unnecessary.[407]

168. We do not change the coordination requirements for Guard Band licensees currently contained in section 27.601(d)(1) of our rules. We note that the Commission imposed coordination requirements to minimize the potential for interference, and we reiterate that the primary purpose of the Guard Bands is to prevent interference to adjacent public safety operations. Absent information indicating that our coordination requirements do not serve to prevent interference, we conclude that we should retain the coordination requirements set forth in the rule. Given that we are adopting the Secondary Markets spectrum leasing rules for the Guard Band service, we clarify how these coordination requirements will work in the context of spectrum leasing arrangements. To the extent a licensee enters into a spectrum manager lease arrangement, it retains *de facto* control of the spectrum and primary responsibility for ensuring compliance with the rules.[408] Accordingly, for this type of spectrum leasing arrangement, the licensee is required to carry out these coordination responsibilities.[409] If, however, a licensee enters into a *de facto* transfer leasing arrangement, the coordination and notification tasks set forth in section 27.601 of our rules (as well as other responsibilities associated with *de facto* control) are, upon Commission approval, transferred from the licensee to the spectrum lessee. In this latter type of arrangement, we note that although the spectrum lessee becomes primarily responsible for complying with the required frequency coordination responsibilities under the license authorization, we will continue to hold licensees responsible for the failure of a spectrum lessee to comply with the Commission's frequency coordination requirements.[410]

IV. FURTHER NOTICE OF PROPOSED RULEMAKING

A. Introduction

169. In the Report and Order, above, we provide increased flexibility to 700 MHz Commercial Services Band licensees to facilitate the development of new and innovative services in this spectrum, while also advancing the Commission's goals of promoting spectrum access and the provision of service in rural areas. In addition, we provide additional flexibility to 700 MHz Guard Band licensees to enable them to make better use of the Guard Bands spectrum.

170. In this Further Notice, we reach tentative conclusions and make proposals with respect to a limited number of key issues affecting the 700 MHz Band that affect all three of these proceedings. In addition, we seek comment on the "Public Safety Broadband Deployment Plan" proposal submitted very

---

[406] Access Spectrum/Pegasus Comments in WT Docket No. 06-169, App. at 6. The existing coordination requirements for Guard Band Managers include notification to public safety frequency coordinators and adjacent area Guard Band Managers of several specified technical details within one business day after either the coordination of a station or the filing of an application with the Commission. *See* 47 C.F.R. § 27.601(d). Additionally, operation is restricted until at least 10 business days after the required notification, and in the event of harmful interference, the Commission may impose restrictions on the operations by involved parties. *Id.* In contrast, the coordination requirement that applies to the Upper 700 MHz C and D Blocks consists of providing a description of the proposed facility, prior to commencing operation, to a public safety coordinator when the proposed facility is within 500 meters of existing or planned public safety base station receivers. *See* 47 C.F.R. § 27.303.

[407] Access Spectrum/Pegasus Comments in WT Docket No. 06-169, App. at 6.

[408] *See* 47 C.F.R. § 1.9020(a)-(b).

[409] *See* 47 C.F.R. § 1.9010 (if licensee retains *de facto* control of the spectrum, it is responsible for resolving all interference-related matters, including conflicts between its spectrum lessee and any other licensee).

[410] *See* 47 C.F.R. § 1.9030(a)-(b).

recently by Frontline, which if adopted in some form potentially could affect decisions in all three proceedings. In seeking additional comment in this Further Notice, we stress that we intend to rely on the extensive record that has already been developed in these proceedings to inform our ultimate decisions.

B. Discussion

171. This Further Notice encompasses issues pertinent to all three of our 700 MHz proceedings, as well as to Frontline's proposal. First, based on the record developed in connection with these proceedings, we seek comment on various band plan proposals for licensing the unauctioned commercial spectrum in the 700 MHz Band on a CMA, EA, and REAG basis, and for reconfiguring the size and location of some of the spectrum blocks associated with these commercial licenses.

172. Second, we propose to adopt performance requirements for the unauctioned 700 MHz Commercial Services licenses based on geographic benchmarks. These proposed requirements are intended be more stringent than the current "substantial service" requirements.

173. Third, we tentatively conclude that we can adopt neither the BOP, nor the proposals to reallocate the returned B Block licenses to critical infrastructure industries (CII) or public safety entities, because we do not have the statutory authority to adopt key components of the proposals. Irrespective of the lack of statutory authority, we also tentatively conclude that the BOP and CII proposals would not be in the public interest, because of the manner in which they propose to assign commercial licenses outside of a competitive bidding context, and because they could introduce an increased possibility of interference in the proposed assignment of licenses. However, we also seek comment on an alternative proposal for modification of the Guard Bands in the Upper 700 MHz Band recently submitted by parties that have supported the BOP.

174. Fourth, we tentatively conclude to redesignate the public safety wideband spectrum for broadband use consistent with a nationwide interoperability standard, and to prohibit wideband operations on a going forward basis. We also tentatively conclude that should we adopt this broadband approach, we should revise the band plan for the 700 MHz Public Safety Band by consolidating the existing narrowband channels to the upper half of the Public Safety block, and designating the lower half of the Public Safety block for nationwide interoperable broadband communications. Given these tentative conclusions, we further seek comment on a limited set of issues that would need to be resolved in order to effectuate the reconfiguration.

175. Finally, we seek comment on the Frontline proposal. We ask for comment on how this proposal interrelates with our proposals, tentative conclusions, and other issues.

1. 700 MHz Band Commercial Services

176. In the Report and Order, we decided to adopt a mix of geographic licensing areas for the 700 MHz Band in order to enhance access to spectrum by a variety of potential licensees. In particular, we revised the geographic areas to consist of CMAs, EAs, and REAGs, which will replace the unauctioned EAG-sized license areas in the 700 MHz Band. We concluded that by providing a mix of CMA, EA, and REAG licenses in the 700 MHz Commercial Services spectrum, we provide a more balanced set of initial licensing opportunities that provide an effective means of access to spectrum especially in rural areas, while effectively meeting other Commission goals. In this Further Notice, we seek comment on different band plan proposals for the use of CMAs, EAs and REAGs in the Lower 700 MHz Band and the Upper 700 MHz Commercial Services Band.

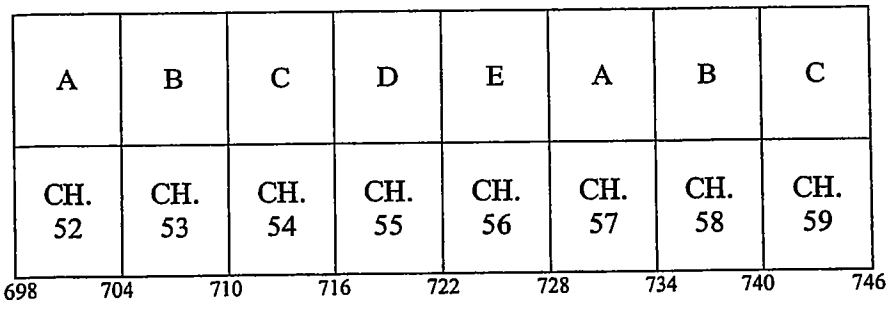
a. Lower 700 MHz Band

177. Background. In the existing band plan for the Lower 700 MHz Band, the 48 megahertz of spectrum is divided into five blocks: three 12-megahertz paired blocks, each consisting of two 6-

megahertz segments (Blocks A, B, and C); and two 6-meghahertz unpaired blocks (Blocks D and E).[411] In the *700 MHz Commercial Services Notice*, we suggested that the current band plan for the Lower 700 MHz Band should be retained, but we nevertheless sought comment on potential changes to the size of the spectrum blocks in the Lower 700 MHz Band.[412]

178. Discussion. With regard to the Lower 700 MHz Band, we propose not to alter the spectrum blocks as currently sized and aligned.[413] The spectrum comprising Lower 700 MHz Band Blocks C and D, consisting of 18 of the 48 megahertz in that band, has already been auctioned, and the remainder of the Lower 700 MHz Band is subject to a statutorily imposed auction schedule.[414] We also note that a number of parties who submitted comments in response to the *700 MHz Commercial Services Notice* supported retaining the current size of spectrum blocks in the Lower 700 MHz Band, including Blocks C and D of that Band.[415] We therefore propose not to change the bandwidth of this licensed spectrum, but seek further comment on this proposal.

FIGURE 5 – PROPOSED RECONFIGURATION OF LOWER 700 MHZ BAND



Block	Frequencies	Bandwidth	Pairing	Area Type	Licenses
A	698-704, 728-734	12 MHz	2 x 6 MHz	EA	176
B	704-710, 734-740	12 MHz	2 x 6 MHz	CMA	734
C	710-716, 740-746	12 MHz	2 x 6 MHz	CMA	734*
D	716-722	6 MHz	unpaired	EAG	6*
E	722-728	6 MHz	unpaired	REAG	12

*Blocks have been auctioned.

179. We propose that the unpaired spectrum in the E Block of the Lower 700 MHz Band continue to be licensed in large regional areas, namely, on an REAG basis. As the Commission has found before with respect to the 700 MHz band and to the AWS-1 band, and as supported by several commenters in this record, licenses based on large geographic areas offer certain benefits, such as allowing licensees to more easily take advantage of economies of scale to develop new technologies and services. We seek comment on whether this proposal would serve the public interest.

---

[411] *See 700 MHz Commercial Services Notice*, 21 FCC Rcd at 9354 ¶ 14; *Lower 700 MHz Band Report and Order*, 17 FCC Rcd at 1055 ¶ 80.

[412] *700 MHz Commercial Services Notice*, 21 FCC Rcd at 9369 ¶ 49.

[413] In the *700 MHz Commercial Services Notice*, we stated that we believed that the current band plan should be retained for the Lower 700 MHz Band. *700 MHz Commercial Services Notice*, 21 FCC Rcd at 9369 ¶ 49.

[414] *See Auction 44 Public Notice; Auction 49 Public Notice; Auction 60 Public Notice; Section II.A., supra.*

[415] *See* Balanced Consensus Plan. The signatories to the Balanced Consensus Plan include some of the original and/or current licensees in the C Block of the Lower 700 MHz Band, *e.g.*, Aloha, Blooston, C&W, Corr, Union, and Vermont Telephone Co.

180. We propose to adopt EAs as the geographic area for licenses in the A Block in the Lower 700 MHz Band. We make this proposal because, as explained above, there is significant support in the record for a mix of licenses, including EA licenses. Given the potential public interest benefits of licensing an additional spectrum block over a smaller geographic service area, we seek comment on whether it would serve the public interest to license the A Block on an EA basis.

181. Likewise, we propose that CMAs be adopted as the geographic service area for licenses in the B Block of the Lower 700 MHz Band, which results in the availability of 734 CMA licenses in this block as opposed to 6 EAG licenses. In seeking comment on this proposal, we note that certain commenters specifically favor the B Block for reassignment on the basis of CMAs.[416] We also note that, if we assign CMAs in the Lower 700 MHz Band B Block, licensees will be afforded the opportunity to combine the B Block licenses with licenses in the adjacent C Block, which already have been licensed over CMAs (MSAs/RSAs).[417] Accordingly, we seek comment on whether converting the B Block to CMA licensing could create opportunities for existing licensees in the C Block of the Lower 700 MHz Band, many of which include small or rural service providers, to create a larger block by acquiring another similarly sized spectrum block in the auction.

b. Upper 700 MHz Commercial Services Band

182. Background. Under the existing band plan for the Upper 700 MHz Commercial Services Band, 30 megahertz of spectrum is divided into two blocks: (1) a 10-megahertz paired block consisting of two 5-megahertz segments (C Block); and (2) a 20-megahertz paired block consisting of two 10-megahertz segments (D Block).[418] In the *700 MHz Commercial Services Notice*, we sought comment on the band plan and whether we should reconfigure the size of these spectrum blocks.[419] We specifically sought comment on whether the D Block, currently established as a 20-megahertz block, should be divided into two or more blocks.[420]

---

[416] *See* MilkyWay Comments in WT Docket No. 06-150 at 1; RCA Comments in WT Docket No. 06-150 at 1; RCA Reply Comments in WT Docket No. 06-150 at 1; RTG Comments in WT Docket No. 06-150 at 7 (supports B Block and one other block over CMAs); RTG Reply Comments in WT Docket No. 06-150 at 3 (discussing support for Balanced Consensus Plan and stressing support for B Block of the Lower 700 MHz Band to be licensed over CMAs); MetroPCS Comments in WT Docket No. 06-150 at 13; Leap Comments in WT Docket No. 06-150 at 5; Blooston Comments in WT Docket No. 06-150 at 3; Corr Reply Comments in WT Docket No. 06-150 at 4; Aloha Comments in WT Docket No. 06-150 at 7 (Aloha has no strong preference for which 700 MHz Band (Upper or Lower) should include CMA allocations of at least 10-12 MHz, but believes that it would be more efficient and less disruptive simply to revise licensing boundaries for the existing B Block in the Lower 700 MHz Band). *See also* Comments of Rural Telecommunications Group, Inc. in Support of Modification of License Area Sizes for 700 MHz Spectrum, Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59), GN Docket No. 01-74, Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules, WT Docket No. 99-168, Rural Telecommunications Group, Inc. (filed Sept. 27, 2005) (requesting that MSA/RSA licenses be provided for the Lower 700 MHz Band B Block and Upper 700 MHz Band C Block, totaling 22 megahertz of spectrum).

[417] *See* Corr Reply Comments in WT Docket No. 06-150 at 4; Aloha Comments in WT Docket No. 06-150 at 7; Blooston Comments in WT Docket No. 06-150 at 3.

[418] *See 700 MHz Commercial Services Notice*, 21 FCC Rcd at 9352 ¶ 11; *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 491 ¶ 35.

[419] *See 700 MHz Commercial Services Notice*, 21 FCC Rcd at 9369-73 ¶¶ 49-59. We note that this portion of the notice addressed whether changes to the Commission's competitive bidding rules should be made in connection with the aggregation of spectrum, and also asked for comment concerning a "two-sided auction." *Id.* at 9372-73 ¶¶ 56-59. The competitive bidding rules, and the two-sided auction mechanism, are addressed in the Report and Order in Section III.A.2.b, above.

[420] *700 MHz Commercial Services Notice*, 21 FCC Rcd at 9369 ¶ 49, 9370-71 ¶ 53.

183. Discussion. The following proposals would make several changes to the size and location of the spectrum blocks in the band plan currently associated with the Upper 700 MHz Commercial Services Band and the 700 MHz Guard Bands, as well as the geographic area basis on which the various blocks should be licensed. We consider these changes in large part because we are tentatively concluding to consolidate the proposed broadband portion of the 700 MHz Public Safety Band at the lower portion of the Public Safety spectrum, as discussed below, while consolidating narrowband operations to the upper portion of the Public Safety spectrum. If the Commission adopts such a proposal, the adjacency of Public Safety broadband spectrum to commercial broadband spectrum in the Upper 700 MHz Band may make it possible to make adjustments to the Guard Bands spectrum, rendering additional spectrum available for commercial use. Under one scenario, the existing Guard Band B block would be eliminated entirely, and the spectrum subsumed within the commercial spectrum in the Upper 700 MHz Band, resulting in a total of 34 megahertz available for auction. Under another scenario, the Guard Band B Block would be reduced from four to two megahertz, and the location of both the Guard Band A and B blocks would be shifted within the Upper 700 MHz Band. We discuss the proposals below on this basis.

(i) Proposals Based on Elimination of the Guard Band B Block

184. *Elimination of the Guard Band B Block.* As noted, adoption of our proposal to consolidate the broadband Public Safety spectrum in the lower portion of the 700 MHz Public Safety Band may mean that the four megahertz of spectrum in the existing Guard Band B Block is no longer needed for use as a guard band for the adjacent 700 MHz public safety users, and may be consolidated with the rest of the commercial spectrum for more efficient and effective use. The following proposals would reconfigure the band plan associated with the 30 megahertz of commercial spectrum in the Upper 700 MHz Commercial Services Band and the four megahertz of commercial spectrum in the 700 MHz Guard Band B Block, providing 34 megahertz of commercial spectrum in the Upper 700 MHz Band available for auction throughout most of the nation. These proposals also contemplate the creation of a 12 megahertz paired block of commercial spectrum (758-764 MHz/788-794 MHz) adjacent to the 700 MHz Public Safety Band (hereinafter the "adjacent block").

185. In addition to providing additional spectrum for wireless broadband services, the new adjacent block could help facilitate the transition to wireless broadband for public safety in its 700 MHz spectrum. Under these proposals, the adjacent block auction winner(s) would have to pay the costs of consolidating the 700 MHz Public Safety spectrum with the narrowband allocation at the upper end and the broadband allocation at the lower end. We seek comment on whether the adjacent block auction winner(s) should, as a license condition, be required to post a letter of credit or place certain funds in escrow to ensure the availability of funds to fulfill this obligation. We also seek comment on how to establish the amount and mechanism for implementing such an obligation. For example, how should we assess the responsibility for relocating public safety operations if there are multiple adjacent block auction winners?

186. As mentioned above, the Commission currently holds 42 of the 52 Guard Band B Block licenses. These proposals would grandfather the remaining B Block licenses by allowing them to continue to operate in this spectrum under current rules. We seek comment on whether we should permit existing Guard Band B Block licensees to operate pursuant to the current technical specifications for the Guard Band B Block, which contemplate that Guard Band B Block licensees operate high-site, high-power communications.[421] We seek comment on whether there would be potential for harmful

[421] We note, for example, that Radiofone objects to any modification to its existing Guard Band B Block license in the Gulf of Mexico. Radiofone Comments in WT Docket No. 06-169 at 2. Radiofone does not assert that it is currently engaged in operations. Additionally, we note that the Commission requires all Guard Band Managers to file annual reports by March 1 of each year in their license term through January 1, 2015. *See 700 MHz Guard Bands Second Report and Order*, 15 FCC Rcd at 5332-33 ¶¶ 75-80. Radiofone's March 2007 Band Manager Report does not cite any Spectrum Use Agreement with Radiofone. We also note that within the context of the BOP (continued....)

interference to new, co-channel adjacent block licensees, or to public safety broadband operations, if we adopt our proposals for the 700 MHz Public Safety spectrum. Similarly, if we eliminate the existing Guard Band B block, resulting in a 12-megahertz 700 MHz commercial block immediately adjacent to the 700 MHz Public Safety block, we seek comment on whether any technical or operational restrictions or limitations would need to be adopted to protect against interference to the proposed broadband public safety operations.

187. In addition, we seek comment on whether the Commission could facilitate clearing of the existing Guard Band B Block licensees by allowing the incumbents to include their licenses in the auction inventory in a "two-sided" auction,[422] which would make available licenses currently held by incumbent Guard Band B Block licensees. Commenters should address details of how the existing licenses could be incorporated into the auction, and how the incumbent licensees could be compensated for "selling" a license. Are there other ways we should consider transitioning the existing Guard Band B Block licensees to the proposed band plan?

188. We note that a reconfiguration of the band plan for the 700 MHz Public Safety Band, as discussed below, may result in the relocated narrowband channels being blocked by existing Canadian TV broadcasters in certain border areas.[423] Although the Canadian government has agreed to clear broadcasters from TV channels 63 and 68, there is as yet no such agreement for TV channels 64 and 69, where the narrowband channels would rest in their entirety after the proposed band plan reconfiguration.[424] As a temporary solution to this problem, we are also seeking comment below in this Further Notice on whether to allow, in border areas, narrowband voice communications within the 1 megahertz internal guard band that is designed (under a band reconfiguration) to protect the narrowband channels from the proposed broadband channels.[425] The result of this option would be a corresponding loss of available spectrum for broadband communications, since a 1 megahertz internal guard band would still be necessary to protect the shifted narrowband channels from public safety broadband operations.

189. As a result, under these proposals, we would impose a license condition upon the adjacent block licensee, creating a temporary easement into the adjacent block to facilitate the full 5 megahertz bandwidth of the proposed public safety broadband allocation under a band reconfiguration. This easement would terminate upon transition of the border broadcast operations and the subsequent transition of any relevant public safety users operating on the easement. We also seek comment on whether this easement should be triggered in all adjacent block licenses that share a border with Canada or Mexico, within each licensee's entire service area or within the portion that is within range of the conflicting broadcaster's service contour. In such a circumstance, should the adjacent block licensee be allowed to operate on a secondary basis within the easement spectrum, or not at all? Finally, we seek comment on whether we have the authority to impose this license condition on new adjacent block licensees.

190. Proposal 1. In the first proposal, we would establish a new 22-megahertz C Block (comprised of two 11-megahertz blocks of paired spectrum), and a new 12-megahertz D Block (comprised of two 6-megahertz blocks of paired spectrum). Both the C and D Blocks in the Upper 700 MHz Band would be licensed on a REAG basis. A chart illustrating this proposal is set forth below.

(Continued from previous page)
proposal, the BOP proponents asserted that they would agree to work around the Radiofone service area in implementing the BOP. Access Spectrum/Pegasus Reply Comments in WT Docket No. 06-169 at 21, 22.

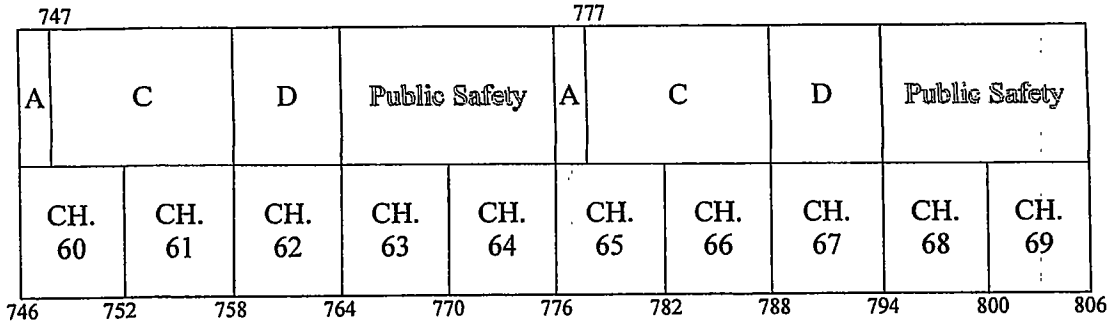
[422] *See, e.g., supra* Section III.A.2.b.(i) (describing one potential type of "two-sided" auction),

[423] *See 700 MHz Guard Bands Notice*, 21 FCC Rcd at 10432 ¶ 45.

[424] *See* Access Spectrum/Pegasus Comments in WT Docket No. 06-169 at 17.

[425] *See infra* Section IV.B.3.b.

FIGURE 6 – FIRST PROPOSAL FOR RECONFIGURATION OF UPPER 700 MHZ BAND



Block	Frequencies	Bandwidth	Pairing	Area Type	Licenses
A	746-747, 776-777	2 MHz	2 x 1 MHz	MEA	52*
B	*762-764, 792-794*	*4 MHz*	*2 x 2 MHz*	*MEA*	*52*‡*
C	747-758, 777-788	22 MHz	2 x 11 MHz	REAG	12
D	758-764, 788-794	12 MHz	2 x 6 MHz	REAG	12

*Blocks have been auctioned

‡42 of 52 licenses nationwide held by the Commission, *remaining licenses potentially grandfathered*

191. Creating a paired, 22-megahertz block of spectrum in a newly configured C Block would be responsive to the desires of some potential new entrants, as well as many other commenters who favored a large 20 megahertz block of spectrum in the Upper 700 MHz Band.[426] For example, the Coalition for 4G in America has specifically advocated that we adopt a paired, 22-megahertz license in the Upper 700 MHz Band to support new entry.[427] Under this proposal, licensees could purchase licenses in these contiguous blocks to create 34-megahertz licenses, which could provide unique opportunities to offer broadband services. Further, with regard to the larger 22-megahertz C Block REAG licenses, we propose, consistent with the desires expressed by the Coalition for 4G America,[428] to auction this block on a combinatorial basis, which would further facilitate the aggregation of licenses at auction to create a nationwide footprint. We seek comment on this proposal.

192. Proposal 2. This proposed band plan contemplates licensing 34 megahertz of commercial spectrum in the Upper 700 MHz Band using a mix of REAG, EA and CMA geographic licensing areas. In conjunction with the proposed mix of geographic licensing areas in the Lower 700 MHz Band,[429] this proposal seeks to approximate the balanced mix of geographic licensing sizes adopted by the Commission in the recent AWS-1 auction. It is intended to provide opportunities for small providers in rural areas, as well as new entrants seeking to establish a nationwide wireless footprint, and to afford

[426] *See, e.g.*, DIRECTV/EchoStar Reply Comments in WT Docket No. 06-150 at 7-8 (dividing the 20-megahertz D Block would artificially limit the types of services available in the 700 MHz Band); Motorola Comments in WT Docket No. 06-150 at 5 (generally recommending that commercial spectrum be licensed in wider spectrum blocks); Qualcomm Comments at 18 (the D Block should remain intact because certain technologies require 20-megahertz bandwidth for fastest possible data transmission); Verizon Reply Comments in WT Docket No. 06-150 at 6-7 (asserts that a 20-megahertz paired license should be retained); CTIA Comments in WT Docket No. 06-150 at 6-7 (supports maintaining at least 20 megahertz of paired spectrum in the Upper 700 MHz Band D Block).

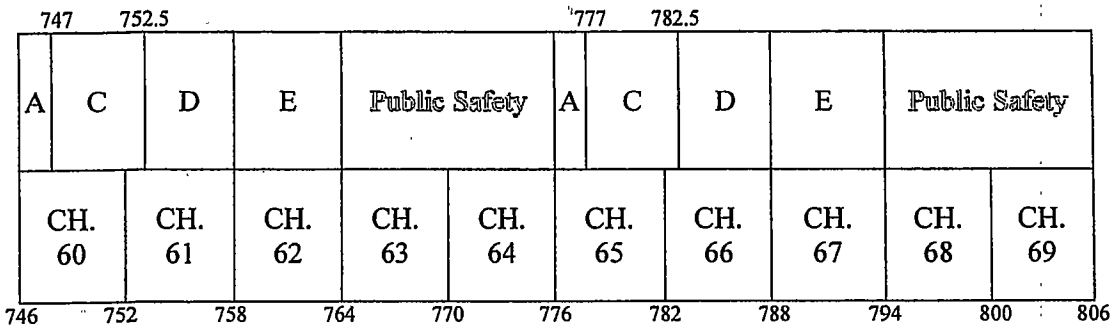
[427] *See* Letter from Ruth Milkman, counsel for Access Spectrum L.L.C., and on behalf of the Coalition for 4G in America, to Marlene Dortch, Secretary, FCC, *Ex Parte* in WT Docket Nos. 96-86, 06-150 and 06-169 (filed Apr. 4, 2007) ("Coalition for 4G in America *Ex Parte* in WT Docket Nos. 96-86, 06-150 and 06-169").

[428] *See* Coalition for 4G in America *Ex Parte* in WT Docket Nos. 96-86, 06-150 and 06-169at 2.

[429] *See supra* Section IV.B.1.a.

bidders flexibility to aggregate smaller markets to create either a nationwide market, or large regional or other customized markets.

FIGURE 7 – SECOND PROPOSAL FOR RECONFIGURATION OF UPPER 700 MHZ BAND



Block	Frequencies	Bandwidth	Pairing	Area Type	Licenses
A	762-763, 792-793	2 MHz	2 x 1 MHz	MEA	52*
B	*762-764, 792-794*	*4 MHz*	*2 x 2 MHz*	*MEA*	*52*‡*
C	747-752.5, 777-782.5	11 MHz	2 x 5.5 MHz	CMA or EA	734 or 176
D	752.5-758, 782.5-788	11 MHz	2 x 5.5 MHz	EA	176
E	758-764, 788-794	12 MHz	2 x 6 MHz	REAG	12

*Blocks have been auctioned.

‡42 of 52 licenses nationwide held by FCC, *remaining licenses potentially grandfathered.*

193. Specifically, this proposal would create two 11-megahertz licenses (each composed of two 5.5-megahertz paired blocks) – the C and D blocks – and a 12-megahertz E block (composed of two 6-megahertz paired blocks) similar to the block that is the subject of the Frontline proposal discussed below. Under this proposal, we would license the C and D Blocks both on an EA basis, or the C Block on a CMA basis and the D Block on an EA basis. We would license the E Block on a REAG basis. This band plan is not tied to adoption of either the Broadband Optimization Plan or the recently filed alternative plan. We seek specific comment on whether this proposal provides interested bidders with the flexibility to aggregate smaller markets to create either a nationwide market, large regional or other customized markets, as advocated by a broad array of parties.[430] Also, we seek comment as to whether this band plan would offer some potential new entrants an opportunity to provide broadband services.[431] Finally, we seek comment on whether to consider licensing these spectrum blocks set forth in this proposal on a different geographic basis.

(ii) Proposals Based on Modified 700 MHz Guard Bands

194. *Modification of the 700 MHz Guard Bands.* The following three proposals are premised on: 1) a shift of the Guard Band A Block from 746-747/776-777 MHz to 762-763/792-793 MHz; 2) a reduction of the Guard Band B Block from 4 megahertz to 2 megahertz; and 3) a shift of the Guard Band B Block from 762-764/792-794 MHz to 775-776 MHz/805-806 MHz. These actions would make 32 megahertz of spectrum in the Upper 700 MHz Band (746-762 MHz/776-792 MHz) available for

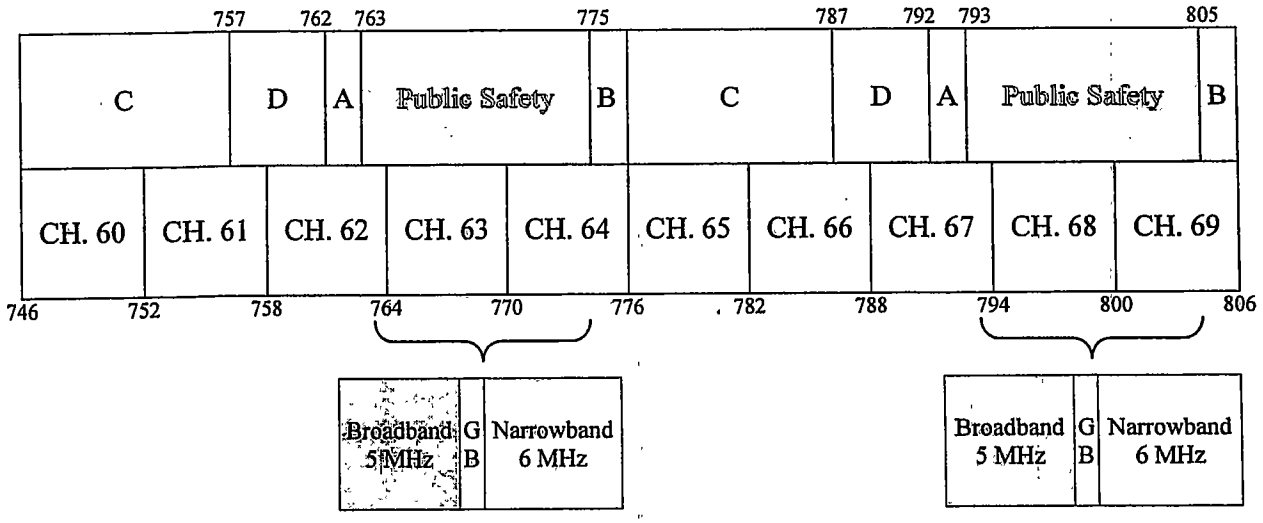
[430] *See* Balanced Consensus Plan Comments in WT Docket No. 06-150 at Attachment; T-Mobile Reply Comments in WT Docket No. 06-150 at 4; Vermont Department of Public Service *et al.* Reply Comments in WT Docket No. 06-150 at 7; U.S. Cellular Comments in WT Docket No. 06-150 at 6-7; Leap Reply Comments in WT Docket No. 06-150 at 2; RTG Comments in WT Docket No. 06-150 at 5.

[431] Coalition for 4G in America *Ex Parte* in WT Docket Nos. 96-86, 06-150 and 06-169.

commercial licensing.

195. Proposal 3. Access Spectrum/Pegasus have submitted an alternative proposal to the Commission for modification of the Guard Bands in the Upper 700 MHz Band, which could also impact the configuration of the Upper 700 MHz Band.[432] According to Access Spectrum/Pegasus, its alternative plan would permit the auction of 32 megahertz of commercial broadband spectrum but leave the size of the public safety allocation unchanged. They also argue that it would accommodate the consolidation of the public safety narrowband spectrum by addressing the Canadian interference issues and public safety relocation costs, discussed above. Finally, by proposing an 11 megahertz block immediately adjacent to the Lower 700 MHz C Block, Access Spectrum/Pegasus assert that the alternative proposal addresses interference concerns on the record by moving the Guard Band A Block.

FIGURE 8 – ACCESS SPECTRUM/PEGASUS ALTERNATIVE PROPOSAL



196. Access Spectrum/Pegasus propose to "shift" down the 700 MHz Public Safety Band by 1 megahertz to remedy potential narrowband interference issues with Canada and Mexico, if the Commission determines that a consolidation of the narrowband channels to the top of the public safety allocation is in the public interest. In implementing the "shift," the current A Block at 746-747 MHz and 776-777 MHz would be displaced and relocated, and the Upper 700 MHz C Block would become a 22-megahertz block (comprised of two 11-megahertz paired blocks) through redistribution of a total of 2 megahertz of current B Block spectrum. According to Access Spectrum/Pegasus, a 22-megahertz C Block would address potential interference concerns and would be responsive to record support for an 11-megahertz paired block. The alternative plan proposes that the D Block would be a 10-megahertz block, (comprised of two 5-megahertz paired blocks) and that the newly configured B Block would be reduced from a total of 4 megahertz to 2 megahertz. In addition, with the displacement of the A Block, Access Spectrum/Pegasus propose that the Commission modify the licenses of the incumbent A Block licensees, essentially "repacking" the newly configured A Block with all current A and B Block licensees.

197. Access Spectrum/Pegasus propose to work with the Commission to ensure that all current A Block and B Block licensees can be accommodated in the newly configured A Block.[433] Subject to

[432] *See* Letter from Ruth Milkman, counsel to Access Spectrum, LLC and Kathleen Wallman, adviser to Pegasus Communications Corporation, to Marlene H. Dortch, Secretary, FCC, *Ex Parte* in WT Docket Nos. 06-169, 06-150 and 96-86 (filed Apr. 18, 2007) (Access Spectrum/Pegasus Apr. 18, 2007 *Ex Parte*).

[433] The Access Spectrum/Pegasus Alternative proposal does not address how the Commission should license the new B Block Guard Band that it proposes should now be located at 775-776 MHz, paired with 805-806 MHz.

certain conditions, Access Spectrum/Pegasus would also agree to pay for the transition of public safety narrowband operations in the band. Their proposed conditions include: (a) the newly configured A Block sharing the same service rules as the Upper 700 MHz C and D Blocks, including application of our Secondary Markets rules; and (b) the Commission removing the cellular architecture restrictions on the newly configured A Block.[434]

198. We seek comment on Access Spectrum/Pegasus' alternative proposal and its likely effects on both the commercial and public safety users in the 700 MHz Band. We also seek comment on whether, and to what extent, the Commission should: (a) adopt certain, but not all, elements of the Access Spectrum/Pegasus alternative proposal; (b) modify any elements of the proposal, adopt any additional requirements, or adopt any alternative requirements to achieve the same or similar public interest goals; and (c) consider alternative approaches to encourage public-private partnerships for sharing spectrum between public safety users and commercial licensees in the 700 MHz Band.

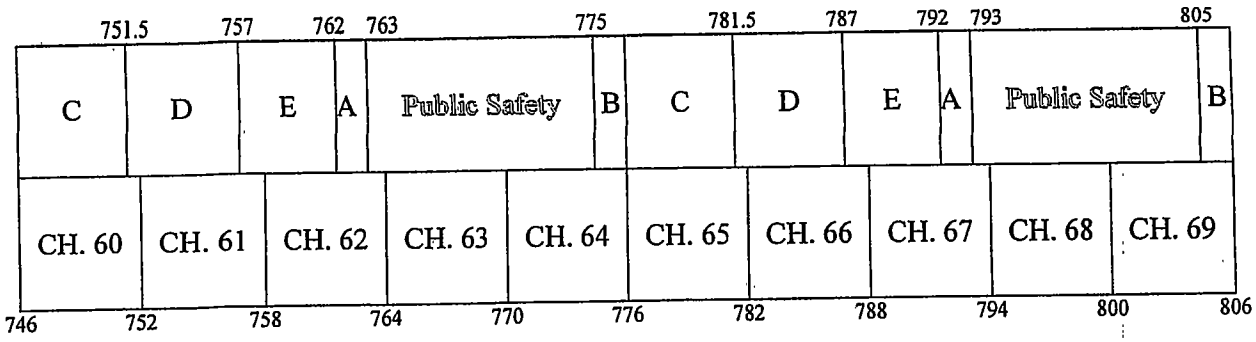
199. The Access Spectrum/Pegasus proposal to shift down the public safety block by 1 megahertz would result in the overlap of public safety spectrum onto 1 megahertz of each pair of the current Guard Bands B Block licenses, including licenses that are currently encumbered in certain areas of the country. As a proposed solution to this problem, Access Spectrum/Pegasus offers to work with the Commission and the current Guard Bands B Block licensees to repack all of the current Guard Bands licensees into the newly configured A Block. We note that, in addition to Access Spectrum/Pegasus, two other current Guard Bands B Block license holders, PTPMS II and Harbor Guard Band, LLC, have indicated that they will work with the Commission to develop a plan that treats each party fairly.[435] We seek comment on the extent to which the Commission may rely on these private negotiations to resolve the spectrum overlap problem. We are concerned that, if all incumbent Guard Bands licensees do not come to an agreement consistent with Access Spectrum/Pegasus' alternative proposal, public safety and commercial operations in areas with incumbent B Block licensees would be significantly curtailed. We tentatively conclude that the Commission should reject Access Spectrum/Pegasus' alternative proposal if the incumbent licensees are unable to come to an agreement.

200. Proposal 4. If we determine that we are able to modify the Upper 700 MHz Guard Bands in the manner proposed by Access Spectrum/Pegasus in connection with their alternative band plan proposal, we seek comment on other options the Commission may take. For example, we seek specific comment on the proposals illustrated below.

[434] The alternative proposal would handle the interface between the public safety and new A Block in the same way as under the BOP, as described in the Report of the Second Technical Working Group. Access Spectrum/Pegasus Apr. 18, 2007 *Ex Parte* at 2, citing Second Report of the Technical Working Group, WT Docket Nos. 06-169 and 96-86 (Jan. 26, 2007).

[435] *See* Letter from Michael Gottdenker, Access Spectrum, LLC, Marshall Pagon, Pegasus Communications Corporation, Alfred Angelo, PTPMS II, and John Mason, Harbor Guard Band, LLC, to Marlene H. Dortch, Secretary, FCC, *Ex Parte* in WT Docket Nos. 06-169, 06-150 and 96-86 (filed April 23, 2007).

FIGURE 9 – FIRST ADDITIONAL PROPOSAL BASED ON MODIFIED GUARD BANDS



Block	Frequencies	Bandwidth	Pairing	Area Type	Licenses
C	746-751.5, 776-781.5	11 MHz	2 x 5.5 MHz	REAG	12
D	751.5-757, 781.5-787	11 MHz	2 x 5.5 MHz	REAG	12‡
E	757-762, 787-792	10 MHz	2 x 5 MHz	EA	176‡
A	762-763, 792-793	2 MHz	2 x 1 MHz	MEA	52*
B	775-776, 805-806	2 MHz	2 x 1 MHz	MEA	52*

*Blocks have been auctioned, at different locations in band plan.
‡If Frontline proposal were adopted, D Block would be licensed on EA basis with 176 licenses, and E Block would be a single, nationwide license.

201. This proposed band plan is composed of a mix of REAG and EA geographic licensing areas for the Upper 700 MHz Band. In conjunction with the tentative conclusion regarding the mix of geographic licensing areas in the Lower 700 MHz Band, this band plan closely approximates the balanced mix of geographic licensing sizes adopted by the Commission in the recent AWS auction. This band plan will provide opportunities for small providers in rural areas, as well as new entrants seeking to establish a nationwide wireless footprint.

202. Specifically, this band plan proposes to license the C and D Blocks as two separate 11-megahertz licenses (each composed of two 5.5-megahertz paired blocks) on a REAG basis, with an E Block similar to the block that that is the subject of the Frontline proposal discussed below licensed as a 10-megahertz license (composed of paired 5-megahertz blocks) on an EA basis. We seek specific comment on whether this proposal regarding the C and D Blocks will provide interested bidders with an opportunity to combine the two blocks into a single 22-megahertz license, which some potential new entrants have suggested would provide unique opportunities to provide broadband services.[436] We also seek specific comment on whether one or both of the C and D Blocks should be auctioned on a combinatorial basis in order to further facilitate the aggregation of a nationwide footprint, and if so, how this should be accomplished.

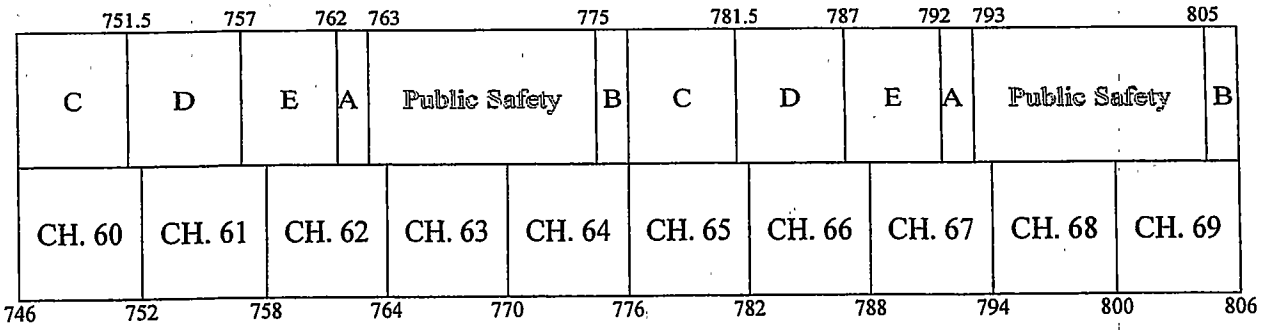
203. In addition, we propose that if the Commission were to adopt the Frontline proposal discussed below (effectively treating the E block as a single national geographic license), we would license the D Block on an EA basis (and maintain the C Block on a REAG basis) in order to maintain a balanced mix of geographic license sizes. We seek comment on this proposal.

204. Proposal 5. Finally, we seek comment on an additional alternative proposal that assumes that we modify the guard bands. As set out below, under this band plan we would license the C and D blocks as two 11-megahertz licenses (each composed of two 5.5-megahertz paired blocks), with a 10-megahertz E Block (composed of paired 5-megahertz block). The C Block would be licensed on a REAG

[436] Coalition for 4G in America *Ex Parte* in WT Docket Nos. 96-86, 06-150 and 06-169.

basis, and the D and E Blocks would be licensed on an EA basis.

FIGURE 10 – SECOND ADDITIONAL PROPOSAL BASED ON MODIFIED GUARD BANDS



Block	Frequencies	Bandwidth	Pairing	Area Type	Licenses
C	746-751.5, 776-781.5	11 MHz	2 x 5.5 MHz	REAG	12
D	751.5-757, 781.5-787	11 MHz	2 x 5.5 MHz	EA	176
E	757-762, 787-792	10 MHz	2 x 5 MHz	EA	176‡
A	762-763, 792-793	2 MHz	2 x 1 MHz	MEA	52*
B	775-776, 805-806	2 MHz	2 x 1 MHz	MEA	52*

*Blocks have been auctioned, at different locations in band plan.

‡If Frontline proposal were adopted, E Block would be a single, nationwide license.

205. A number of parties have argued that a more flexible Upper 700 MHz band plan that includes a mix of licenses could better support a variety of business plans and ensures that the spectrum is made available to the bidders that value it most. There is a concern that a band plan with only REAGs in the Upper 700 MHz Band may artificially favor only the largest wireless incumbents or particular business models. These principles have been supported by a large number of commenters including large wireless providers,[437] tribal governments,[438] state regulators,[439] and a large coalition of wireless providers.[440] These principles reflect the Commission's statutory obligation to ensure "an equitable distribution of licenses and services among geographic areas" and to "avoid [ ] excessive concentration of licenses . . . by disseminating licenses among a wide variety of applicants, including small businesses, rural telephone companies, and businesses owned by members of minority groups and women."[441]

206. The above band plan takes into account these several positions by providing for a mix of REAGs and EAs in the upper band plan based in part on the 700 MHz guard band and public safety spectrum restructuring advocated by Access Spectrum and Pegasus. By splitting the larger 22-megahertz block into two 11-megahertz blocks, we increase the opportunity for all providers to actively participate in the auction. We also would allow for combinatorial bidding on the C Block to facilitate the ability of entities to secure a national license. We seek comment on the merits of this proposal and on the specific areas selected for the blocks: two EAs and one REAG. Parties are also encouraged to comment on possible changes to this band plan in the event the Commission adopts a proposal similar to the one advanced by Frontline. Finally, we seek comment on the impact of this band plan on potential new

[437] T-Mobile Reply Comments in WT Docket No. 06-150 at 2-4.

[438] Navajo Nation Comments in WT Docket No. 06-150 at 1-2.

[439] Vermont Department of Public Service *et al.* Comments in WT docket No. 06-150 at 3-4.

[440] Balanced Consensus Plan Comments in WT Docket No. 06-150 at Attachment.

[441] 47 U.S.C. § 309(j)(3).

entrants, some of which have argued that a larger 22-megahertz block is critical for their market entry business plans.[442]

c. Performance Requirements

207. Background. In the *Upper 700 MHz First Report and Order*, the Commission adopted the performance requirements in Section 27.14(a) of its rules for licenses in the 746-764 and 776-794 MHz Bands.[443] The rules outlined in Section 27.14(a) require licensees to provide "substantial service" within ten years of license issuance.[444] The *Upper 700 MHz First Report and Order* also established safe harbors for meeting the substantial service requirement. Specifically, the Commission decided that it would consider a licensee to be providing "substantial service" when the licensee constructs four permanent links per one million people in the licensed service area (when fixed, point-to-point service is offered) or if the licensee demonstrates coverage of 20 percent of the population of the licensed service area (when the licensee offers either mobile services or fixed, point-to-point service).[445] In the *Lower 700 MHz Report and Order*, the Commission adopted the same substantial service standard and safe harbors for licenses in the 698-746 MHz Band.[446] As with all Wireless Radio Service licenses, failure to meet the specified performance requirements under the particular license authorization within the required period results in automatic license termination.[447]

208. In addition, the Commission established a safe harbor related to the provision of mobile service in rural areas in the *Rural Report and Order*. In that Order, the Commission stated that a licensee providing mobile service in various bands, including the 700 MHz Band, "will be deemed to have met the substantial service requirement if it provides coverage to at least 75 percent of the geographic areas of at least 20 percent of the 'rural areas' within its licensed area."[448] This "rural safe harbor" is in addition to the safe harbors specifically established for fixed and mobile services in the 700 MHz Band.

209. In the *700 MHz Commercial Services Notice*, we sought comment on whether the Commission should revise these existing performance requirements, or adopt alternative build-out rules, for unauctioned licenses in the 700 MHz Band in order to promote access to spectrum and the provision of service to consumers.[449] In particular, the *700 MHz Commercial Services Notice* sought comment on the effectiveness of the existing substantial service standard and safe harbors and whether changes or revisions, such as additional safe harbors, should be adopted to better promote service, especially in rural areas.[450] The *700 MHz Commercial Services Notice* also sought comment on whether the Commission should adopt alternative performance requirements, such as population-based or geography-based benchmarks, instead of the substantial service standard.[451] Finally, we sought comment on whether it

---

[442] Coalition for 4G in America *Ex Parte* in WT Docket Nos. 96-86, 06-150 and 06-169.

[443] *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 505-506 ¶¶ 70-72.

[444] 47 C.F.R. § 27.14(a). This section defines "substantial service" as "service which is sound, favorable, and substantially above a level of mediocre service which just might minimally warrant renewal." *Id.*

[445] *See Upper 700 MHz First Report and Order*, 15 FCC Rcd at 505 ¶ 70.

[446] *See Lower 700 MHz Report and Order*, 17 FCC Rcd at 1079 ¶¶ 149-151.

[447] 47 C.F.R. § 1.946(c).

[448] *Rural Report and Order*, 19 FCC Rcd at 19123 ¶ 79.

[449] *700 MHz Commercial Services Notice*, 21 FCC Rcd at 9373-76 ¶¶ 60-69.

[450] *Id.* at ¶ 62-63.

[451] *Id.* at ¶64-66.

should adopt a "keep-what-you-use" performance requirement similar to the policy applied to cellular service in the 1980s, or a slightly modified version called "triggered keep-what-you-use."[452]

210. Commenters have presented various positions on the issue of performance requirements, with most discussion centering on a debate between retaining the existing substantial service standard and adopting some type of a "keep-what-you-use" approach. Many of those parties that commented on this issue – representing a mix of large, medium, and small CMRS providers, as well as two providers of broadband technology – recommend that the Commission maintain its existing substantial service standard.[453] In contrast, a number of other commenters support a "keep-what-you-use" approach, including rural CMRS providers, a tribal government, and a coalition of state government agencies.[454] Blooston does not support a "keep-what-you-use" approach for licenses that are based on RSAs but believe the Commission should consider applying this standard to licenses based on larger geographic service areas.[455]

211. Some commenters argue in favor of population- or geography-based construction benchmarks, and some of these parties recommend a combination of both benchmarks and a "keep-what-you-use" approach.[456] In particular, RCA supports a combination of geographic benchmarks and a "keep what you use" rule. Under the RCA proposal, licensees would be required to employ a signal level sufficient to provide service to at least 25 percent of the geographic area of their license area within three years, 50 percent of the geographic area of their license area within five years, and 75 percent of the geographic area of their license area within eight years. In addition, at the end of the license term, a "keep what you use" rule would be applied, in which the unserved portions of the license areas would return to the Commission for reassignment.[457] Vermont Department of Public Service *et al.* also offer a combination of benchmarks and a "keep what you use" rule. Under the proposal by Vermont Department of Public Service *et al.*, the licensee would face either a population-based benchmark that required coverage of 50 percent of the population of the license area within five years and 90 percent of the population within eight years, or a geographic-based benchmark that would require coverage of 40 percent of the license area within five years and 75 percent of the license area within eight years. In

---

[452] *Id.* at ¶ 67-69.

[453] *See, e.g.*, AT&T Comments in WT Docket No. 06-150 at 12-16; AT&T Reply Comments in WT Docket No. 06-150 at 21-24; CTIA Comments in WT Docket No. 06-150 at 7-16; Cingular Comments in WT Docket No. 06-150 at 9-13; Corr Comments in WT Docket No. 06-150 at 5-8; Dobson Comments in WT Docket No. 06-150 at 5-10; Leap Comments in WT Docket No. 06-150 at 9-10; Leap Reply Comments in WT Docket No. 06-150 at 5-6; MetroPCS Comments in WT Docket No. 06-150 at 15-16; MetroPCS Reply Comments in WT Docket No. 06-150 at 10-12; MilkyWay Comments in WT Docket No. 06-150 at 7-9; NextWave Reply Comments in WT Docket No. 06-150 at 14; Qualcomm Comments in WT Docket No. 06-150 at 19; Union Telephone Comments in WT Docket No. 06-150 at 5-6; U.S. Cellular Comments in WT Docket No. 06-150 at 12-16; U.S. Cellular Reply Comments in WT Docket No. 06-150 at 11-16; Verizon Wireless Comments in WT Docket No. 06-150 at 6-9.

[454] *See, e.g.*, Howard/Javed Comments in WT Docket No. 06-150 at 24-26; Navajo Nation Comments in WT Docket No. 06-150 at 2-3; OPASTCO Comments in WT Docket No. 06-150 at 5-6; RCA Comments in WT Docket No. 06-150 at 8-10; RCA Reply Comments in WT Docket No. 06-150 at 4-7; RTG Comments in WT Docket No. 06-150 at 8-9; Vermont Department of Public Service *et al.* Comments in WT Docket No. 06-150 at 5-10; Vermont Department of Public Service *et al.* Reply Comments in WT Docket No. 06-150 at 4-7.

[455] Blooston Comments in WT Docket No. 06-150 at 7.

[456] *See, e.g.*, DIRECTV/EchoStar Comments in WT Docket No. 06-150 at 9; Navajo Nation Comments in WT Docket No. 06-150 at 2-3; RCA Comments in WT Docket No. 06-150 at 8-10; RCA Reply Comments in WT Docket No. 06-150 at 4-7; Vermont Department of Public Service, *et al.* Comments in WT Docket No. 06-150 at 5-8. The Navajo Nation, RCA, and the Vermont Department of Public Service, *et al.* favorably discuss both benchmarks and a "keep-what-you-use" approach.

[457] *See* RCA Comments in WT Docket No. 06-150 at 8-10; RCA Reply Comments in WT Docket No. 06-150 at 4-7.